

IN THE CLAIMS:

The following is a listing of the pending claims.

Claim 1 (Original): A method of computing a biased ratio value for anisotropic texture map filtering, comprising:

- receiving a ratio value for a texture map;
- applying a bias to the ratio value to produce the biased ratio value; and
- determining a number of texture samples to filter based on the biased ratio value.

Claim 2 (Original): The method of claim 1, wherein the applying comprises scaling the ratio value by the bias summed with one to produce the biased ratio value.

Claim 3 (Original): The method of claim 2, wherein the applying further comprises clamping the biased ratio value to a number less than or equal to one.

Claim 4 (Original): The method of claim 2, wherein the bias is programmed.

Claim 5 (Original): The method of claim 2, wherein the bias is determined by a software driver.

Claim 6 (Original): The method of claim 2, wherein the bias ranges from 0 to 15/16.

Claim 7 (Original): The method of claim 1, further comprising determining the bias based on a performance mode selected by a user.

Claim 8 (Original): The method of claim 1, further comprising performing trilinear filtering when the biased ratio value is greater than or equal to one.

Claim 9 (Original): The method of claim 1, further comprising performing anisotropic filtering when the biased ratio value is less than one.

Claim 10 (Original): A method of determining a number of texture samples for use in an anisotropic texture map filtering computation, comprising:

- receiving a ratio value;
- computing a biased ratio value using the ratio value and a bias; and
- determining the number of texture samples for use in the anisotropic texture map filtering computation based on the biased ratio value.

Claim 11 (Original): The method of claim 10, wherein the bias corresponds to a texture identifier.

Claim 12 (Original): The method of claim 10, wherein the bias is programmed.

Claim 13 (Original): The method of claim 10, wherein the ratio value is scaled by the bias summed with 1 to produce the biased ratio value.

Claim 14 (Original): The method of claim 10, further comprising clamping the biased ratio value to one when the biased ratio value is greater than one.

Claim 15 (Original): The method of claim 10, wherein the computing comprises adding a level of detail bias to the level of detail value.

Claim 16 (Original): A programmable graphics processor for generating images using anisotropically filtered texture samples, comprising:

- a texture unit configured to receive texture parameters and compute a filtered texture sample, the texture unit including
 - an anisotropic optimization unit configured to compute a biased ratio value indicating a number of texture samples to anisotropically filter.

Claim 17 (Original): The programmable graphics processor of claim 16, further comprising an address computation unit configured to determine one or more read addresses using at least a portion of the texture parameters and the biased ratio value.

Claim 18 (Original): The programmable graphics processor of claim 17, further comprising a texture filter unit configured to receive one or more texture samples from memory and a portion of the texture parameters and produce an anisotropically filtered texture sample.

Claim 19 (Original): The programmable graphics processor of claim 16, wherein the anisotropic optimization unit includes a storage element configured to store one or more biases.

Claim 20 (Original): The programmable graphics processor of claim 16, wherein the anisotropic optimization unit includes a storage element configured as a lookup table.